Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:	)	
	)	
Usage of the Public Switched Network	)	**CC Docket No. 96-263**
By Information Service and Internet	)	
Access Providers	)	

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MCI REPLY COMMENTS

I. Introduction

MCI Telecommunications Corporation (MCI), pursuant to the Notice of Inquiry in the above-captioned docket, hereby submits its Reply Comments. In the Notice, the Commission asked for comment on the implications of information and Internet usage for the public switched telephone network. On March 24, 1997, 44 parties filed comments. In this reply, MCI responds to comments on the impact of Internet traffic growth on the public network, the assessment of access charges on Internet service providers (ISPs), and several other issues.

II. Technical Solutions to Internet Traffic Growth Exist

There is broad agreement among commenters that the volume of Internet traffic using the public telephone network is growing rapidly. PacTel, for example, estimates that the number of dialup users of Internet access in its region will increase from 2.3

million to 4.7 million by 2001, and that Internet access minutes on its network will almost equal the number of voice minutes by 2001.[1] Similarly, Bell Atlantic estimates that, at current growth rates, dialup Internet traffic will equal interexchange access traffic within a few years.[2]

With their comments, several incumbent LECs have provided studies that show that ISPs use the public network more intensively than a typical business. Generally, these studies show that the lines serving ISPs show occupancy levels in excess of 30 "hundred call seconds" (CCS), significantly greater than the average CCS per line. The incumbent LECs argue that these usage levels exceed even those for businesses that have considerable inbound traffic, such as ticketing agencies.[3] Furthermore, the incumbent LECs argue that these high-volume businesses represent a small fraction of overall traffic, while ISP traffic is increasing rapidly.

While there is disagreement about whether the growth of Internet traffic is creating network reliability issues, most commenters agree that the voice network does not carry Internet traffic efficiently and that the solution is to rely to a greater extent on packet-switched networks to link homes and businesses with ISP POPs.[4] These packet access networks would circumvent part or all of the circuit-switched public network. A variety of possible architectures are described in the comments; the incumbent LECs, in

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[1]PacTel Comments, Exhibit A, p. 3.

[2]Bell Atlantic Comments, Attachment B, p. 2.

[3]Bell Atlantic Comments, Attachment B, p. 3.

[4]See, e.g., SWBT Comments at 8; America Online Comments at 20-21.

particular, point to several new packet access services that they are beginning to deploy.[5] They generally claim, however, that demand for these services has been limited.[6]

Parties also agree that, in the long run, packet access networks will enable higher-bandwidth access to the Internet.[7] It is apparent that the existing voice network, in addition to being inefficient, is also a performance bottleneck. New high-bandwidth packet-access networks would be better able to handle information-intensive applications that rely on graphics or video. Commenters cite a number of alternatives, such as cable modems and wireless solutions, but generally agree that one of the most promising technologies for telecommunications carriers is the digital subscriber line (xDSL) family of technologies combined with fast-packet technologies such as Asynchronous Transfer Mode (ATM).

III. The LECs' Studies Do Not Demonstrate Revenue Shortfalls

While there is general agreement that there are alternatives to the public network that would carry Internet traffic more efficiently, commenters do not agree on the regulatory steps that might accelerate the move to greater reliance on packet switching technologies. Incumbent LECs argue that the "ESP exemption" allows ISPs to purchase access at "artificially" low rates that encourage ISPs to continue using circuit-switched

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[5]See, e.g., Bell Atlantic Comments at 11-12; GTE Comments at 5.

[6]Bell Atlantic Comments at 13.

[7]GTE Comments at 5; Internet Access Coalition at 17-20.

services even when packet-switched services might be more efficient. They claim that the FCC must assess access charges on ISPs in order to send the correct pricing signals. ISPs, on the other hand, generally argue that the rates they pay are fully compensatory, and that additional access charge revenue would only encourage the incumbent LECs to continue investing in their circuit-switched networks.[8]

To support their contention that the services purchased by ISPs are priced substantially below cost, the incumbent LECs outline costs they have incurred to handle increased ISP traffic. GTE, for example, claims that it has expended between $50.3 million and $83.6 million to upgrade its network to handle Internet traffic.[9] However, increased costs alone do not demonstrate that ISP services are priced below cost. The LECs must show that the increased revenue from providing services to ISPs will not be sufficient to cover incremental costs. Only a few LECs have attempted to show such a revenue shortfall. Pacific Telesis, for example, argues that it faces a shortfall of $441 million over the next ten years.[10]

The Pacific Telesis study has a number of shortcomings that are commonly found in the LECs' studies of the cost impacts of ISP traffic. For example, it is not clear whether Pacific Telesis's study assumes that ISPs will subscribe to ordinary business lines or if it captures the increased reliance of ISPs on digital T1 and PRI ISDN trunks.

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[8]America Online Comments at 8; Internet Access Coalition Comments at 25.

[9]GTE Comments at 22.

[10]Pacific Telesis Comments, Exhibit A at 20-21.

Cost studies based on the assumption that ISPs will subscribe to ordinary business lines show a greater revenue shortfall because the per-circuit costs are higher and the per-circuit revenues are lower for ordinary business lines than for digital trunks. LECs that have successfully encouraged a greater fraction of their ISP customers to migrate to digital trunks appear less concerned about potential congestion and cost impacts.[11]

In addition, the assertion of Pacific Telesis and other LECs that second lines used for Internet services do not contribute additional net revenues[12] is undermined by the LECs' own marketing efforts. As several commenters note, some incumbent LECs, including Pacific Telesis, have been aggressively marketing second lines in conjunction with their own Internet services.[13] Moreover, in their financial reports, the incumbent LECs tout second line growth as a significant earnings driver, and do not distinguish between second lines used for Internet access and those used for other purposes.[14] None of the incumbent LECs have presented a cost study that demonstrates that revenues for second lines used for Internet access do not cover costs.

The incumbent LECs also support their contention that the rates paid by ISPs are artificially low by arguing that ISPs use the network far more intensively than ordinary

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[11]CBT Comments at 3.

[12]PacTel Comments, Exhibit A at 19.

[13]See, e.g., PSI Comments, CC Docket No. 96-262, Exhibit 2.

[14]See, e.g., "BellSouth Reports First Quarter Earnings," BellSouth press release, April 21, 1997 ("The 4.8 percent annual growth [in access lines] was driven by record demand in the consumer market.")

business users, but pay the same or less.[15] However, demonstrating that an ISP uses the network more intensively than a typical business customer also fails to prove that ISP traffic causes a revenue shortfall. As several commenters note, the incumbent LECs have typically priced their business lines well above cost.[16]

As AT&T demonstrates, the shortfall is, at worst, relatively modest.[17] It is possible to calculate an effective per-minute access rate by dividing ISPs' per-line costs by the average usage per line. AT&T shows in its comments that the economic cost of access is only slightly above the effective per-minute rate paid by most ISPs today. The very low effective per-minute rates cited by some incumbent LECs are based on exceptionally low business line rates.[18] Nationwide average digital trunk rates would provide a more accurate comparison. Further, any comparison of the effective per-minute rate paid by ISPs today with potential access charges must take into account the fact that access tariffs permit traffic to be aggregated over a larger area. Accordingly, all evidence suggests that the gap, if any, between what ISPs pay today and the forward-looking economic cost of access is small.

Contrary to the incumbent LECs' claims, the slow rate of adoption of their packet access services does not demonstrate that ISPs are currently paying artificially low rates.

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[15]SWBT Comments at 4-5.

[16]See, e.g.,

[17]AT&T Comments at 25-27.

[18]See, e.g., Pacific Telesis Comments, Exhibit A (Pacific cites an effective access rate of $0.00073 per minute, based on a local business line rate of only $15.05 per month.)

The slow rate of adoption could simply reflect the fact that these services are new, are only available from some carriers, and that there is little uniformity in their pricing or service configuration. Bell Atlantic, for example, has built its packet access service around Switched Multimegabit Data Service (SMDS), a packet-switching protocol that has not found widespread acceptance. Only a competitive market can ensure that new packet access networks are deployed to meet the needs of all ISPs, and are not tailored to the incumbent LECs' own Internet operations.

IV. All Access Users Should Pay the Economic Cost of Access

The incumbent LECs now claim that they do not seek to levy the current level of access charges on ISPs.[19] Instead, they argue that ISPs should be subject to access charges, but at a reduced level. Some LECs suggest that post-reform access charges could be imposed on ISPs,[20] while others suggest the creation of a special class of access charges for ISPs.[21]

The incumbent LECs offer few specifics for their access charge proposals. However, it is apparent that the access charges they seek to impose on ISPs would be well above the forward-looking economic cost of access. Because most incumbent LECs have supported a "market-based" approach to access reform, even "post reform" access

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[19]BellSouth Comments at 2.

[20]SWBT Comments at 3.

[21]Bell Atlantic/NYNEX Comments at 13.

charges would be well above cost. It is also clear that the ISP-specific access charge proposed by some incumbent LECs would also be above cost. As noted above, the incumbent LECs significantly exaggerate the costs of providing access to ISPs. They would presumably seek to reflect these inflated costs in any ISP-specific access charge.

Only if access charges are set at their forward-looking economic cost will the imposition of access charges on ISPs send the correct pricing signals. While inflated access rates may serve the LECs' stated aim of making their packet access services more attractive, such substitution would be uneconomic. In addition, only access charges set at their forward-looking economic cost can ensure that the LECs are not able to engage in a price squeeze, providing access to their Internet operations at economic cost while charging inflated rates to unaffiliated ISPs. Access charges should not be imposed on ISPs unless they are at forward-looking economic cost.

It is clear that the incumbent LECs' proposals for a special class of access charge for ISPs are an effort to make the imposition of access charges on ISPs more palatable without committing to real access charge reductions for IXCs. There is, however, no justification for charging ISPs and IXCs different amounts for access. If ISPs are no longer considered end users, ISPs and IXCs will be similarly situated access customers. Consequently, an ISP-specific access charge would be unreasonably discriminatory. ISPs should not have to pay access charges above forward-looking economic cost, and IXCs should not be treated differently than ISPs.

Different classes of access charges would create the potential for inefficient arbitrage. As several commenters note, the Internet is increasingly capable of handling

fax and other traffic that is also carried by IXC networks.[22] The competition between Internet and circuit-switched technologies should be based on true cost differences, not regulatory distinctions.

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[22]See, e.g., AT&T Comments at 13-16.

CERTIFICATE OF SERVICE

I, John E. Ferguson III, do hereby certify that copies of the foregoing Reply Comments on Usage of the Public Switched Network By Information Service and Internet Access Providers were sent, on this 23rd day of April, 1997, via first-class mail, postage pre-paid, to the following:

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